

An anti-toxin serum contains the resistive power of a specific disease, the *result* of acquired immunity from previous vaccination of a healthy animal which has been subjected to successive inoculations of the specific toxin in gradually increasing strength until a high degree of resistance is produced. The horse is the animal usually selected. When ready, the animal is bled and the serum separated, a dose of which serum is injected into the patient; the earlier it is given in a case of disease, the better its effect, the symptoms of distress from disease being rapidly ameliorated in a favourable case. Anti-toxins are not active virus, such as vaccines, but assist the active defensive cells already in the patient's blood by strengthening their power by the cumulative resistance it produces on inoculation. The anti-toxin principle is taken from the fact that the reaction of the tissues to the poison of disease is nature's method of arresting such. As the bacteria have the power of producing poisons or toxins, so the tissues, including the white blood corpuscles, have the power of producing antidotes, or anti-toxins. If the tissues are strong and healthy the anti-toxic power is very great, the toxins will be destroyed, and the disease arrested; but if the tissues be feeble, the anti-toxin formation will be inadequate to fight against the production of the poison, and the disease will progress unchecked. One of the most successful anti-toxins employed is that of diphtheria, where the tissues are very readily weakened by the very potent toxin the disease produces in a very short period from the date of incubation.

A common dose of diphtheria anti-toxin is 3,000 units, that amount being generally put up for inoculation in a sealed bottle, which is also numbered, the number referring to the horse from which the serum has been taken, the object being, if possible, to have the patient injected with the serum from one horse only should a second injection be required. The amount of anti-toxin given and the number of doses required varies with the nature and severity of the case, sometimes large doses being given at the outset, such as in cases of nasal and laryngeal diphtheria, where toxin absorption is very rapid. The best and simplest method of preparing the skin is to paint thoroughly with iodine (2-4 per cent. solution), covering the site with a pad of absorbent wool or sterile gauze. Another method is to wash thoroughly with soap and water, sponging after with alcohol or ether, then applying an aseptic dressing. The site is usually the shoulder or thigh. The hypodermic needle and all material

required should be surgically clean at the time of injection.

HONOURABLE MENTION.

The following competitors receive honourable mention:—Miss H. Gunn, Miss E. A. Noblett, Miss H. Ballard, Miss E. O. Walford, Miss M. Forrest, Miss V. Ryott, Miss E. C. Hall, Miss D. Humphreys, Miss D. Vine, Miss A. B. Owen, Miss J. V. McNeillie.

QUESTION FOR NEXT WEEK.

What accidents to patients most often occur in the wards? How would you prevent them?

A MEETING OF TRAINED NURSES TO CONSIDER THEIR OWN AFFAIRS.

A Meeting has been summoned by the President of the National Council of Trained Nurses of Great Britain and Ireland, upon Resolutions passed by the Matrons' Council, and the League of St. Bartholomew's Hospital Nurses, to consider the Circular Letter addressed by the Hon. Arthur Stanley, M.P., to Hospital Committees, proposing a scheme for the organization of the Nursing Profession—and to take action upon it. It is realised by many thoughtful matrons and nurses, who have for many years devoted time and energy to the organization of their profession, and who have kept in touch with its progress all over the world, that no voluntary scheme would be acceptable to those who, by their devotion to professional affairs, have convinced the Houses of Lords and Commons, the British Medical Association, and the National Council of Women of Great Britain and Ireland that it is just that Nursing, like Medicine and Midwifery, should be organized by Act of Parliament. Thus the passing of the Nurses' Registration Bill has long been a matter of urgent national importance, and a Resolution to be proposed at the meeting will emphasise this fact.

The meeting of nurses will be held in the large Hall of the Royal Society of Medicine, 1, Wimpole Street, London, W., on Saturday, February 12th, at 4 p.m., and it is earnestly hoped that every member of the various affiliated Societies which compose it will be present if duty permits, as it is felt strongly that those nurses who realise the benefit of State Registration are faced once more with a situation which may prove very disastrous for them, unless they face it firmly and take action in their own defence, as they have done successfully on previous occasions—as when the promoters of the "Nurses' Directory Bill," and the so-called "Society for the Higher

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